

## General

### Title

Perioperative care: percentage of surgical patients, aged 18 years and older, who receive an anesthetic when undergoing procedures with the indications for prophylactic parenteral antibiotics for whom administration of a prophylactic parenteral antibiotic ordered has been initiated within one hour prior to the surgical incision.

### Source(s)

American Society of Anesthesiologists (ASA). Perioperative care: timely administration of prophylactic parenteral antibiotics. Schaumburg (IL): American Society of Anesthesiologists (ASA); 2015 Oct 1. 2 p.

## Measure Domain

### Primary Measure Domain

Clinical Quality Measures: Process

### Secondary Measure Domain

Does not apply to this measure

## Brief Abstract

### Description

This measure is used to assess the percentage of surgical patients, aged 18 years and older, who receive an anesthetic when undergoing procedures with the indications for prophylactic parenteral antibiotics for whom administration of a prophylactic parenteral antibiotic ordered has been initiated within one hour (if fluoroquinolone or vancomycin, two hours) prior to the surgical incision (or start of procedure when no incision is required).

### Rationale

The appropriate timing of administration of prophylactic parenteral antibiotics has been demonstrated to reduce the incidence of surgical wound infections. Available evidence suggests that although most surgical patients receive a prophylactic antibiotic, many do not receive the drug within one hour before

incision as recommended.

#### Clinical Recommendation Statements:

Overall, administration of the first dose of antimicrobial beginning within 60 minutes before surgical incision is recommended. Administration of vancomycin and fluoroquinolones should begin within 120 minutes before surgical incision because of the prolonged infusion times required for these drugs (Bratzler et al., 2013).

Infusion of the first antimicrobial dose should begin within 60 minutes before incision. However, when a fluoroquinolone or vancomycin is indicated, the infusion should begin within 120 minutes before incision to prevent antibiotic-associated reactions. Although research has demonstrated that administration of the antimicrobial at the time of anesthesia induction is safe and results in adequate serum and tissue drug levels at the time of incision, there was no consensus that the infusion must be completed before incision (Bratzler et al., 2004).

## Evidence for Rationale

American Society of Anesthesiologists (ASA). Perioperative care: timely administration of prophylactic parenteral antibiotics. Schaumburg (IL): American Society of Anesthesiologists (ASA); 2015 Oct 1. 2 p.

Bratzler DW, Dellinger EP, Olsen KM, Perl TM, Auwaerter PG, Bolon MK, Fish DN, Napolitano LM, Sawyer RG, Slain D, Steinberg JP, Weinstein RA. Clinical practice guidelines for antimicrobial prophylaxis in surgery. *Am J Health Syst Pharm*. 2013 Feb 1;70(3):195-283. [1075 references] [PubMed](#)

Bratzler DW, Houck PM, Surgical Infection Prevention Guidelines Writers Workgroup, American Academy of Orthopaedic Surgeons, American Association of Critical Care Nurses, American Association of Nurse Anesthetists, American College of Surgeons, American College of Osteopathic Surgeons, American Geriatrics Society, American Society of Anesthesiologists, American Society of Colon and Rectal Surgeons, American Society of Health-System Pharmacists, American Society of PeriAnesthesia Nurses, Ascension Health, Association of periOperative Registered Nurses, Association for Professionals in Infection Control and Epidemiology, Infectious Diseases Society of America, Medical Letter, Premier, Society for Healthcare Epidemiology of America, Society of Thoracic Surgeons, Surgical Infection Society. Antimicrobial prophylaxis for surgery: an advisory statement from the National Surgical Infection Prevention Project. *Clin Infect Dis*. 2004 Jun 15;38(12):1706-15. [90 references] [PubMed](#)

## Primary Health Components

Perioperative care; anesthesia; prophylactic parental antibiotics; fluoroquinolone; vancomycin

## Denominator Description

All surgical patients, aged 18 years and older, who receive an anesthetic when undergoing procedures with the indications for prophylactic parenteral antibiotics (see the related "Denominator Inclusions/Exclusions" field)

## Numerator Description

Surgical patients for whom administration of a prophylactic parenteral antibiotic ordered has been initiated within one hour (if fluoroquinolone or vancomycin, two hours) prior to the surgical incision (or start of procedure when no incision is required) (see the related "Numerator Inclusions/Exclusions" field)

## Evidence Supporting the Measure

## Type of Evidence Supporting the Criterion of Quality for the Measure

A clinical practice guideline or other peer-reviewed synthesis of the clinical research evidence

A formal consensus procedure, involving experts in relevant clinical, methodological, public health and organizational sciences

## Additional Information Supporting Need for the Measure

Unspecified

## Extent of Measure Testing

Unspecified

## State of Use of the Measure

### State of Use

Current routine use

### Current Use

not defined yet

## Application of the Measure in its Current Use

### Measurement Setting

Ambulatory Procedure/Imaging Center

Hospital Inpatient

Hospital Outpatient

### Professionals Involved in Delivery of Health Services

not defined yet

### Least Aggregated Level of Services Delivery Addressed

Individual Clinicians or Public Health Professionals

### Statement of Acceptable Minimum Sample Size

Does not apply to this measure

## Target Population Age

Age greater than or equal to 18 years

## Target Population Gender

Either male or female

# National Strategy for Quality Improvement in Health Care

## National Quality Strategy Aim

Better Care

## National Quality Strategy Priority

Health and Well-being of Communities

Prevention and Treatment of Leading Causes of Mortality

# Institute of Medicine (IOM) National Health Care Quality Report Categories

## IOM Care Need

Getting Better

Staying Healthy

## IOM Domain

Effectiveness

Timeliness

# Data Collection for the Measure

## Case Finding Period

Unspecified

## Denominator Sampling Frame

Patients associated with provider

## Denominator (Index) Event or Characteristic

Patient/Individual (Consumer) Characteristic

Therapeutic Intervention

## Denominator Time Window

not defined yet

## Denominator Inclusions/Exclusions

### Inclusions

All surgical patients aged 18 years and older who receive an anesthetic when undergoing procedures with the indications for prophylactic parenteral antibiotics

Note: Anesthesia services included in denominator are associated with some surgical procedures for which prophylactic parenteral antibiotics may not be indicated. Clinicians should report 4047F-8P for those instances in which anesthesia services are provided but not associated with surgical procedures for which prophylactic parenteral antibiotics are indicated.

### Exclusions

Unspecified

## Exclusions/Exceptions

not defined yet

## Numerator Inclusions/Exclusions

### Inclusions

Surgical patients for whom administration of a prophylactic parenteral antibiotic ordered has been initiated within one hour (if fluoroquinolone or vancomycin, two hours) prior to the surgical incision (or start of procedure when no incision is required)

Note: "Ordered" includes instances in which the prophylactic parenteral antibiotic is ordered by the clinician performing the surgical procedure OR is ordered by the clinician providing the anesthesia services.

### Exclusions

Unspecified

## Numerator Search Strategy

Fixed time period or point in time

## Data Source

Administrative clinical data

Registry data

## Type of Health State

Does not apply to this measure

## Instruments Used and/or Associated with the Measure

Unspecified

## Computation of the Measure

### Measure Specifies Disaggregation

Does not apply to this measure

### Scoring

Rate/Proportion

### Interpretation of Score

Desired value is a higher score

### Allowance for Patient or Population Factors

not defined yet

### Standard of Comparison

not defined yet

## Identifying Information

### Original Title

Perioperative care: timely administration of prophylactic parenteral antibiotics.

### Measure Collection Name

Perioperative Care

### Submitter

American Society of Anesthesiologists - Medical Specialty Society

### Developer

American Society of Anesthesiologists - Medical Specialty Society

Physician Consortium for Performance Improvement® - Clinical Specialty Collaboration

## Funding Source(s)

Unspecified

## Composition of the Group that Developed the Measure

Alex A. Hannenberg, MD (*Co-chair*); Jinnet Fowles, PhD (*Co-chair*); Neal Cohen, MD, MPH, MS; Richard T. Connis, PhD; Todd Dorman, MD; Thomas Esposito, MD, MPH, FACS; Ronald A. Gabel, MD; Michael Heisler, MD, MPH; Cynthia P. Helstad, PhD, RN; Daniel L. Herr, MS, MD, FCCM; Kay Jewell, MD, ABHM; Gerald A. Maccioli MD, FCCM; David G. Nickinovich, PhD; Mark D. Morasch, MD; William P. Schecter, MD FACS; Daniel Sessler, MD; Lisa J. Thiemann, CRNA, MNA; Patrick E. Voight, RN, BSN, MSA, CNOR

*American Society of Anesthesiologists*: Karin Bierstein, JD, MPH

*American Medical Association*: Mark Antman, DDS, MBA; Joseph Y. Gave, MPH; Kendra Hanley, MS, CHE; Karen S. Kmetik, PhD

*Facilitator*: Rebecca A. Kresowik; Timothy F. Kresowik, MD

*National Committee for Quality Assurance*: Phil Renner, MBA

*Joint Commission on Accreditation of Healthcare Organizations*: Lisa Buczkowski, RN, MS; Elvira Ryan, RN

## Financial Disclosures/Other Potential Conflicts of Interest

Conflicts, if any, are disclosed in accordance with the Physician Consortium for Performance Improvement® conflict of interest policy.

## Endorser

National Quality Forum - None

## NQF Number

not defined yet

## Date of Endorsement

2014 Nov 12

## Adaptation

This measure was harmonized to the extent possible to measures included in the Surgical Care Improvement Project (SCIP).

## Date of Most Current Version in NQMC

2015 Oct

## Measure Maintenance

Annually

## Date of Next Anticipated Revision

2016 Nov

## Measure Status

This is the current release of the measure.

This measure updates a previous version: American College of Surgeons, Physician Consortium for Performance Improvement®, National Committee for Quality Assurance. Perioperative care physician performance measurement set. Chicago (IL): American Medical Association, National Committee for Quality Assurance; 2006 Oct. 11 p. [8 references]

## Measure Availability

Source available from the [American Society of Anesthesiologists \(ASA\) Web site](#) .

For more information, contact ASA at 1061 American Lane Schaumburg, IL 60173-4973; Phone: 847-825-5586; Fax: 847-825-1692; E-mail: [info@asahq.org](mailto:info@asahq.org); Web site: [asahq.org](http://asahq.org) .

## NQMC Status

This NQMC summary was completed by ECRI Institute on September 13, 2007. The information was verified by the measure developer on October 26, 2007.

This NQMC summary was retrofitted into the new template on June 8, 2011.

Stewardship for this measure was transferred from the PCPI to the ASA. ASA informed NQMC that this measure was updated. This NQMC summary was updated by ECRI Institute on March 23, 2016. The information was verified by the measure developer on April 26, 2016.

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## Production

### Source(s)

American Society of Anesthesiologists (ASA). Perioperative care: timely administration of prophylactic parenteral antibiotics. Schaumburg (IL): American Society of Anesthesiologists (ASA); 2015 Oct 1. 2 p.

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